

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/777,008
Applicant : MARTIN, Emil, *et al.*
Filed : February 11, 2004
For : Treatment or Prevention of cGMP-dependent Pathophysiology
with a Mutant Variant of Soluble Guanylyl Cyclase
TC/A.U. : 1651
Examiner : GITOMER, Ralph J.

Confirmation No. 3412

Customer No.: 23505
Atty. Dkt. No.: 2105-00101
Date: May 2, 2005

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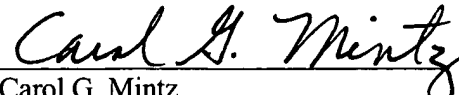
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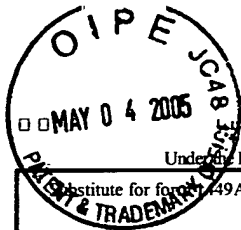
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No Office Action on the merits has been received in the present application. In the event that an Office Action dated prior to the mailing date of this Information Disclosure Statement has been issued, please charge Deposit Account 03-2769, Conley Rose, P.C., in the amount of \$180, so that this Information Disclosure Statement may be considered under Rule 1.97(c).

05/04/2005 FHETEK11 00000036 032769 10777008
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Respectfully submitted,


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| | | | | Application Number | 10/777.008 |
| | | | | Filing Date | February 11, 2004 |
| | | | | First Named Inventor | Emil Martin |
| | | | | Group Art Unit | 1651 |
| | | | | Examiner Name | |
| Sheet | 1 | of | 2 | Attorney Docket Number | 2105-01001 |

| U.S. PATENT DOCUMENTS | | | | | |
|-----------------------|--------------------------|--|--------------------------------|--|---|
| Examiner Initials* | Cite No. ¹ | Document Number | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | Number-Kind Code ² (if known) | | | |
| | AA | US-2002/0155166 | 10-24-2002 | Choi et al. | |
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| FOREIGN PATENT DOCUMENTS | | | | | | |
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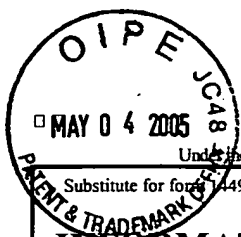
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| | AB | Abrams, J., Beneficial actions of nitrates in cardiovascular disease. <i>Am J Cardiol</i> , 1996. 77(13): p. 31C-7C | |
| | AC | Deinum, G., et al., Binding of Nitric Oxide and Carbon Monoxide to Soluble Guanylate Cyclase as Observed with Resonance Raman Spectroscopy. (1996) <i>Biochemistry</i> 35 (5), 1540-7 | |
| | AD | Do, Y.S., et al., In-Stent Restenosis Limitation With Stent-Based Controlled-Release Nitric Oxide: Initial Results in Rabbits. <i>Radiology</i> , 2004. 230(2): p. 377-82 | |
| | AE | Evans, C.H., et al., Osteoarthritis gene therapy. <i>Gene Ther</i> , 2004. 11(4): p. 379-89 | |
| | AF | Friebe, A., and Koesling, D., Mechanism of YC-1-Induced Activation of Soluble Guanylyl Cyclase. (1998) <i>Mol Pharmacol</i> 53 (1), 123-7 | |
| | AG | Gallo, O., et al., Role of Nitric Oxide in Angiogenesis and Tumor Progression in Head and Neck Cancer. <i>J Nat'l Cancer Inst</i> , 1998. 90(8): p. 587-96 | |
| | AH | Lee, Y. C., et al., Human Recombinant Soluble Guanylyl Cyclase: Expression, Purification, and Regulation. (2000) <i>Proc Nat'l Acad Sci USA</i> 97(20), 10763-8 | |

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| First Named Inventor | Emil Martin |
| Group Art Unit | 1651 |
| Examiner Name | |
| Attorney Docket Number | 2105-01001 |

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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|--------------------|-----------------------|---|----------------|
| | AI | Martin, E., et al., YC-1 Activation of Human Soluble Guanylyl Cyclase has Both Heme Dependent and Heme Independent Components. <i>PNAS. Proc Nat'l Acad Sci USA</i> (Nov. 6, 2001) 98 (23), 12938-42 | |
| | AJ | Okawa, H., et al., Preischemic Infusion of Alpha-Human a Trial Natriuretic Peptide Elicits Myoprotective Effects Against Ischemia Reperfusion in Isolated Rat Hearts. <i>Mol Cell Biochem</i> , 2003. 248(1-2): p. 171-7 | |
| | AK | Sinnaeve, P., et al., Overexpression of a Constitutively Active Protein Kinase G Mutant Reduces Neointima Formation and In-Stent Restenosis. <i>Circulation</i> , 2002. 105(24): p. 2911-6 | |
| | AL | Stasch, J. P., et al., Pharmacological actions of a Novel NO-Independent Guanylyl Cyclase Stimulator, BAY 41-8543: <i>in vitro</i> Studies. (2002) <i>Br J Pharmacol</i> 135 (2), 333-43 | |
| | AM | Stasch, J., et al., NO and Haem Independent Activation of Soluble Guanylyl Cyclase: Molecular Basis and Cardiovascular Implications of a New Pharmacological Principle. <i>British J of Pharmacology</i> (2002) Vol. 136, No. 5, pp. 773-783 | |
| | AN | Stone, J. R., et al., Spectral and Ligand-Binding Properties of an Unusual Hemoprotein, the Ferric Form of Soluble Guanylate Cyclase. <i>Biochemistry</i> (1996), 35, 3258-62 | |
| | AO | Sunahara, R. K., et al., Exchange of Substrate and Inhibitor Specificities between Adenylyl and Guanylyl Cyclases. (1998) <i>J Biol Chem</i> . 273 (26), 16332-8 | |
| | AP | Takahashi, M., et al., Cyclic GMP Production by ANP, BNP, and NO During Worsening and Improvement of Chronic Heart Failure. <i>Jpn Heart J</i> , 2003. 44(5): p. 713-24 | |
| | AQ | Tomita, T., et al., Effects of GTP on Bound Nitric Oxide of Soluble Guanylate Cyclase Probed by Resonance Raman Spectroscopy. (1997) <i>Biochemistry</i> 36 (33), 10155-60 | |
| | AR | Wedel, B., et al., Functional Domains of Soluble Guanylyl Cyclase. (1995) <i>J Biol Chem</i> 270 (42), 24871-5 | |
| | AS | Zhao, Y., and Marietta, M. A., Localization of the Heme Binding Region in Soluble Guanylate Cyclase. (1997) <i>Biochemistry</i> 36 (50), 15959-64 | |
| | AT | Zhao, Y., et al., Identification of Histidine 105 is the β 1 Subunit of Soluble Guanylate Cyclase as the Heme Proximal Ligand. (1998) <i>Biochemistry</i> 37 (13), 4502-9 | |
| | AU | Zhao, Y., et al., A Molecular Basis for Nitric Oxide Sensing by Soluble Guanylate Cyclase. (1999) <i>Proc Nat'l Acad Sci USA</i> 96 (26), 14753-8 | |
| | AV | PCT/US04/03853, PCT International Search Report dated October 28, 2004 | |
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| | Filing Date | February 11, 2004 |
| | First Named Inventor | Emil Martin |
| | Art Unit | 1651 |
| | Examiner Name | Unassigned |
| Total Number of Pages in This Submission | Attorney Docket Number | 2105-01001 |

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